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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,490	07/31/2001	Alan Chin Leong Yeo	PHN 17,751	1700
24737	7590	04/18/2006	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			NGUYEN, DUC M	
			ART UNIT	PAPER NUMBER
			2618	

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 09/890,490	Applicant(s) YEO ET AL.	
	Examiner Duc M. Nguyen	Art Unit 2618	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 20 March 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 10,11 and 13-20.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see the attached "Response to Argument".

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____

13. ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed 3/20/06 have been fully considered but they are not persuasive.

As to claims 13-15, 17 regarding 35 U.S.C 102 (a) over Kim, Applicant contends that Kim fails to teach an RF filter is adjusted based on a figure-of-merit and suggest on page 6 that

"Contrarily, Kim teaches channel selection from among five different RF frequencies within a given "hyperband" of many channels so that the bandwidth of the IF section can be one-fifth as wide as one that accommodates the entire hyperband". The hyperband consists of many channels. The receiver should be capable of selecting any one channel in the hyperband on command." (Kim, col. 1, lines 20-23.) Further, Kim teaches that a conventional AFC loop is used to control the frequency (Kim, column 4, lines 19-43), and is silent with regard to using a figure of merit based on a demodulated digital output signal in this loop."

In response, it is noted that "col. 1, lines 20-23" as recited by Applicant is the background of the invention, not Kim' teaching. Further, the Examiner asserts that Kim does teach an RF filter is adjusted based on a control signal (see col. 4, line 60 – col. 5, line 29 and col. 5, lines 33-36), wherein any signal quality or characteristic such as signal strength (RSSI), signal-to-noise ratio (SNR), bit-error-rate (BER) or frequency error which is used by the control signal for tuning the oscillator and RF filter would read on a "figure-of-merit" as claimed with the broadest reasonable interpretation. In fact, as acknowledged by the Applicant, the AFC loop (see Kim, col. 4, lines 19-33), which is used to control the frequency would inherently require a control voltage derived from the sensed frequency error data to control the frequency of the oscillator, and also for

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tuning the center frequency of the filter, the sensed frequency or frequency error data would also read on a "figure-of-merit" as claimed with the broadest reasonable interpretation.

As to claims 10-11, 16, 18, 20 regarding combined references, since Kim does teach an RF filter is adjusted based on a "figure-of-merit", the Examiner maintains his rejection because all the combined references are analogous arts. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine cited references with Kim for the same reason as set forth in the Office Action.

As to claims 13-20 regarding 35 U.S.C 103 (a) over Porambo in view of Liebetreu, Applicant contends that "Both Porambo and Liebetreu fail to teach demodulating an IF signal to provide a digital output signal and a figure of merit associated with the digital output signal, and adjusting an RF filter based on the figure of merit. Porambo specifically teaches adjusting the RF filters based on an output of an IF section 41, before the demodulation stage 42 (Porambo's FIG. 3). The Office action asserts that Porambo is silent with regard to a demodulator, and therefore one of ordinary skill in the art would combine Liebetreu's digital demodulator with Porambo to produce the applicants' claimed invention. The applicants respectfully disagree with this assertion, and respectfully disagree that a combination of Porambo and Liebetreu would produce the applicants' claimed invention. Porambo specifically illustrates a demodulator 43 in FIG. 3, and teaches its operation at column 4, lines 27-29. Porambo does not teach that an output of this demodulator is used to control the RF filters, and specifically teaches that an output of a prior stage is used to control the RF filters. Assuming in argument that the teachings of Porambo and Liebetreu can be combined, the combination of Porambo and Liebetreu as suggested in the Office action would merely result in a replacement of Porambo's demodulator 43 with Liebetreu's digital demodulator 28, without any suggestion that the operation of Porambo's circuit prior to the demodulator 43 should or could be changed".

In response, the Examiner asserts that the A/D converter 69 and the Microcontroller 25 in Porambo's reference would obviously or implicitly teach a demodulator in order to obtain a digital figure-of-merit (signal strength) for tuning the RF filter and/or providing a gain control for the amplifier. Liebetreu's teaching is used to show the existing of such demodulator. Here, Applicant has mistakenly assumed that there is **only one** demodulator circuit for the receiver. In fact, the AM demodulator 31 or FM demodulator 42 as shown in Porambo reference are specifically used for producing AM or FM audio signals (i.e, they are equivalent to the output interface 62 as shown in Fig. 2 of Liebetreu's reference, noting for the decoder 60 outputs, one output is used for obtaining a digital figure-of-merit BER to tune the filter, the other output is routed according to the system specifications, for examples, producing an audio signal, or displaying a video signal or text data). Therefore, Porambo in view of Liebetreu would teach a demodulator for the A/D 69 and the Microcontroller 25 in Porambo's reference. Note that the A/D converter is also known to be used as a demodulator in the art.

Therefore, Porambo in view of Liebetreu would teach demodulating an IF signal to provide a digital output signal and a figure of merit associated with the digital output signal, and adjusting an RF filter based on the figure of merit as claimed.

As to claims 10-11 regarding combined references, since Porambo in view of Liebetreu does teach an RF filter is adjusted based on a "figure-of-merit", the Examiner maintains his rejection because all the combined references are analogous arts. Therefore, it would have been obvious to one skilled in the art at the time the invention

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was made to combine cited references with Porambo for the same reason as set forth in the Office Action.

For foregoing reasons, the examiner believes that the pending claims are not allowable over the cited prior art.

2. **Any response to this action should be mailed to:**

Box A.F.

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Matthew Anderson (Supervisor) whose telephone number is (571) 272-4177.

Duc M. Nguyen, P.E.

Apr 8, 2006

